Specifications
for:

Fitzsimmons Creek Bridge

Located in
Section 34, T.35N., R.24W.
Lincoln County, Montana

For:
The Department of Natural Resources and Conservation
Stillwater State Forest

Prepared by:

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GENERAL SPECIFICATIONS:

All work and materials are to conform to the Forest Service Specifications for Construction of Roads and Bridges, 1985, as amended by the attached **Special Project Specifications.**

FITZSIMMONS CREEK
DNRC
Stillwater State Forest

SPECIAL PROJECT SPECIFICATIONS
Table of Contents

Section 101 - Abbreviations

101.02 Pay Items & Pay Units	And	&
	Available	Avail
	Coating	Coat
	Construction	Const
	Drawings	Dwgs
	Government	Gov't.
	Includes Culvert Excavation	Incl Culv Exc
	Individual Removal of Trees	Ind Removal/Trees
	Large	Lg
	Logs	Log
	Medium	Med
	One Thousand Gallons Mile	M.Gals.MI. or MGM
	Options	Opt
	Placement Method	P.M.
	Slash Treatment	S.T.
	Small	Sm
	Steel	Stl
	Structure	Str
	Thickness	TH or Thick
	Timber	Tbr
	Treatment	Treat

Section 102 - Definitions

Add the following:

"Forest Officer. The person with authority to administer contracts and make related determinations and findings.

"Noxious Weeds or Weeds. Any exotic plant species established or that may be introduced in the State which may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses and which is designated by the State's Department of Agriculture, or by the County's weed management district, or by other appropriate agencies having jurisdiction, or as listed on the current "All States Noxious Weed List."

Shop Drawings. Incidental design sheets and/or drawings which the Contractor is required to submit to the Forest Service. Shop drawings shall conform to the contract requirements, but they are not part of the contract drawings. They may be drawings, diagrams, schedules, performance charts, brochures, and similar data prepared by the Contractor, subcontractor, manufacturer, suppliers, or distributors that illustrate how specific portions of the work are to be fabricated or installed.

Weed Management District. A weed management district is any area of land identified for the purpose of weed management or control. Such an identified land area may be, but is not limited to one of the following: a project or job site, a County, two or more Counties, or a National Forest."

Section 103 – Intent of Contract

Add the following:

This project is for the removal and replacement of an existing log stringer bridge over Fitzsimmons Creek located on the Stillwater State Forest in Section 34, Township 35 North, Range 24 West, Lincoln County, Montana. The replacement structure is to be a single span prestressed concrete superstructure on steel pile abutments. A temporary portable steel bridge has been placed over the existing log stringer bridge and it will be required to be removed and salavaged as a part of this Contract.

The work includes but is not limited to removal and salvage of an existing portable bridge, removal and replacement of an existing log stringer bridge, roadway and structural excavation, roadway surfacing, riprap, compaction, clearing and grubbing, demolition and all other incidental items necessary to complete the project in accordance with the plans and specifications.

Section 104 – Maintenance for traffic

104.03 Vehicular traffic

Add the following:

The contractor will be allowed to close the road during construction. Coordinate the work schedule with the Forest Officer prior to beginning work at this site.

Provide and maintain construction signing and barricades that conform to the Manual on Uniform Traffic Control Devices (MUTCD). Place advance warning signs at both ends of the road to alert the public of construction activities and road closures.

The existing Big R steel bridge may be used as a work bridge in its current location or may be relocated provided it is set on concrete blocks large enough to provide adequate clearance for expected storm flows (minimum 3' clearance over stream). Abutment beams and all approach fill must be completely outside the Ordinary High Water Mark as determined by a DNRC hydrologist. The Forest Officer must approve the location and design of an alternate placement (there is an approved location just east of the existing bridge). If relocated, the superstructure, abutment beams and approach fill must be removed before winter snowfall closes the road. Install, maintain and remove the work bridge so that no approach fill enters the stream. All activity for this work must comply with applicable stream permits.

Refer to section 202 of the Special Project Specifications for additional requirements for the removal and salvaging of the Big R bridge.

Section 105 - Control of Materials

105.06 Material Sources

Add the following:

Borrow Source- Government Provided. A borrow source for the embankment excavation is located in Section 34, T. 35 N., R. 24 W. The site location is approximately ¼ mile from the bridge site.

Reshape and reclaim the borrow source to the satisfaction of the Forest Officer once all of the material necessary for this project has been removed from the site. This site is not available for removal of material for any other project other than the quantities shown in the contract.

Pile and clear debris in the area designated by the Forest Officer for later burning by others. Place and construct piles so burning will not damage remaining trees and so they are reasonably free of dirt.

Riprap Source- Government Provided. A source for Riprap suitable for the project is located in Section 12, T. 34 N., R. 24 W., This is located approximately 2.5 miles southeast of this project.

Crushed Aggregate Source- Contractor Furnished. There is no available Government source for Crushed Aggregate for this project.

Add the following paragraph to Subsection (b) Contractor-Furnished Sources:

> Prior to any pit development or use of materials, the pit site shall be approved by the Forest Officer that the pit site is free of noxious weed as listed on the "All States Noxious Weeds List."

Section 106 – Measurement & Payment

Delete this Section in its entirety and replace with the following:

106.01
Measurement & Payment

All necessary materials, equipment, and labor to complete the bridge project as shown on the PLANS and specified in these Special Project Specifications will be paid for as a **Lump Sum** price. No separate measurement and payment will be made for individual items.

106.02
Dertermination Of Quantities

Quantities shown on the PLANS are for informational purposes only and are not intended to represent all the work that may be required to complete the project as depicted on the PLANS and described in the Special Project Specifications. No adjustments will be made based on actual quantities used to complete the Project unless the Forest Officer has specifically directed the Contractor to preform work not shown on the PLANS or described in the Special Project Specifications.

Section 160 - Quality Control & Quantity Measurement

CONSTRUCTION

160.02 Quality Control and Quantity Measurement

Under (a) Quality Control Plan, add the following:

"(3) Description of the testing facilities and information on when and where each of the required materials tests will be System performed.

(4) Random sampling and/or measurement plan prepared in accordance with requirements in Table 160."

(5) A log of all samples that are taken by the Contractor shall be maintained for the duration of the contract, and provided to the Forest Officer upon request. Test results on all samples shall be given directly to the Forest Officer within 8 hours of test completion."

160.03 Sampling, Testing, Inspection, and Measurement of

Add the following:

"Minimum sampling and testing frequency is defined in Table 160.

Sampling and testing by the contractor shall meet the applicable AASHTO and ASTM Standards. Unless waived by the Forest Officer, the Forest Officer will inspect both sampling and testing equipment and procedures prior to production. The testing laboratory (including equipment and personnel) shall be operational and available for inspection at least 2 days prior to producing aggregate for acceptance. The testing facility shall be located far enough from construction machinery to avoid harmful vibrations.

160.05 Certifications & Measurements

Delete (b) Quantity Measurements and Add the following:

"The contractor shall furnish a certification signed and sealed by a registered engineer retained by the contractor and specifically identified on the approved contractor's Q/C plan that the following items have been preformed in accordance with the Plans and Specifications:

a.) Pile installation.
b.) Placement of reinforcing steel for all cast-in-place concrete.
c.) Placement of concrete, to include sampling and testing as per Table 160.
d.) Placement and compaction of structural backfill for 50' on both sides of bridge.
e.) Erection and attachment of superstructure to substructure, to include welding of beam ties and placement of grout.

TABLE 160

SAMPLING, TESTING AND MEASUREMENT REQUIREMENTS

A soil type is defined such that all soil in the represented volume shall have the same group symbol in the Unified Soil Classification System (ASTM D 2487) and the percent passing the No. 4 sieve shall not vary more than 10 percent between samples.

Wherever a AASHTO T99 or T180 moisture density curve is required, gradation data will be provided as shown below. The moisture density sample shall maintain the same percentage of coarse material (passing 2 inch and retained on a number 4 sieve) as in the original field sample. Field density testing of soil will normally require the use of AASHTO T224, Coarse Particle Correction.

Field Sample	Moisture Density Test Material
Percent plus 3/4"	Percent plus No. 4
Percent 3/4" to No. 4 sieve	
Percent minus No. 4 sieve	

Where random sample or random measurement is specified, it shall be a stratified statistically random sample. Random numbers are to be determined by ASTM D3665 Section 5.1 thru 5.7, or a computer generated random number program approved by the Forest Officer. The sampling must be stratified to eliminate the possibility of sample points being "clustered". Stratification is done by dividing the total quantity for the applicable bid item by the sample frequency. This process divides the total project quantity of one lot into sublots. The random number is used to obtain a random sampling point within each sublot. The contractor may terminate a lot, and start a new lot when approved by the Forest Officer. Once a lot is terminated it may not be combined with any other lot. If material within a sublot fails to meet specification requirement, the Forest Officer may allow the contractor to rework the sublot materials and resample at a different randomly selected location.

Key to symbols used in table:

CT: Sampling and testing by contractor's personnel identified by name on the approved contractor's Q/C plan. Interim approval of personnel submitted will be based on specified training or experience requirements. Final approval will be based on observation of work performance on the project.

PE: Sampling and testing under the direction of and certification by a registered engineer retained by the contractor and specifically identified on the approved contractor's Q/C plan.

Note: The minimum frequency shown in this table is for contractor Quality Control sampling and testing. The contractor can run additional samples over the minimum number specified in the table. These additional samples can be taken in any manner, at any time desired by the contractor. Quality assurance sampling and testing by the Forest Service may be done at any time or location.

SUBSECTION REFERENCE REQ'D SAMPLING, TESTING AND MEASUREMENTS	RESPONSIBILITY FOR SAMPLING/TESTING	MINIMUM FREQUENCY
206.07 Backfill & Embankments for Structures		
Moisture Density Curve	PE/PE	1 curve per soil type
Field Density under paved sections; in critical embankments: and backfill for bridges, major culverts, structural plate structures, and retaining walls	PE/PE	1 test/25 cy backfill or 1 test/footing, whichever frequency produces the greater number of tests
Field Density of backfill for other structures	CT/CT	(same as above)
304.12 Thickness Requirements		
Measurement of aggregate thickness	CT/CT	Random measurements: For highways: 5 per lane-mile, minimum of 10 per project. For non-highway projects: 10 tests per campground loop, access road or administrative site
551.03 Load Tests		
Calibration of pile driver	--/PE	One test for each pile driver
551.05 Concrete & Steel Pile Bearing Values		
Pile bearing value	--/PE	Each pile
552.02 Classes, Composition & Testing of Concrete		
Concrete mix design & aggregate tests	PE/PE	One mix design submittal for each concrete class, including all the required tests on mix and aggregate for each source
Aggregate moisture content	CT/CT	One test per day on fine and coarse aggregate
Mixer Uniformity: two slump tests	PE/PE	One set of tests per truck
Acceptance Tests: Concrete slump, air content, unit weight, and 4 cylinders	PE/PE	One set of tests per truck

SUBSECTION REFERENCE REQ'D SAMPLING, TESTING AND MEASUREMENTS	RESPONSIBILITY FOR SAMPLING/TESTING	MINIMUM FREQUENCY
553.05 Testing		
Concrete cylinder fabrication and testing	PE/PE	As required in Special Project Specification
553A.02 Requirements		
Concrete slump and air content	PE/PE	As required in specification
Concrete cylinder fabrication and testing	PE/PE	As required in specification

160.04
Records of
Inspection, Tests
& Measurement

(a) Inspections and Tests. In the last paragraph, change "contract" to "contractor."

Section 175 – Construction Staking

The Government has set Control Points to be used for the layout of the bridge and roadway. The Contractor is responsible for completing and maintaining all necessary staking to construct the project as shown on the PLANS. Provide a copy of all staking notes to the Forest Officer.

Section 201 - Clearing & Grubbing

CONSTRUCTION

201.02 Clearing & Grubbing

Delete the sixth paragraph and replace with the following:

"All designated live or dead trees that are leaning or otherwise unstable; not located within the roadway clearing limits or log landings, that could fall on the traveled way shall be cut off not more than 12 inches above the uphill ground line and treated in accordance with subsections 201.03 and 201.05."

201.05 Slash Treatment

Add the following to paragraph (b)(12):

"Place the clearing debris and other old logs and slash at the toe of the fills as directed by the Forest Officer. Slash will be made available to the Contractor on State lands within a 1-mile distance of the project site. Provide a Slash Filter Windrow at the base of all fill slopes as shown on the PLANS."

Section 202 – Removal of Structures & Obstructions

CONSTRUCTION

202.03 Removal of Bridges, Culverts, & Other Structures

Add the following:

Remove and dispose of the existing log stringer bridge. The logs may be placed at the toe of the roadway fills as directed by the Forest Officer. Dispose of all sawn timbers by burial or removal from the site. Do not dispose of any sawn timbers where they will be visible or bury in the fill if the are treated. Do not bury any sawn timbers closer than 50 feet to the stream as directed by the Forest Officer.

Remove, haul and store the existing steel BIG R bridge to the Stillwater State Forest office in Olney. Keep the bridge intact as much as possible. Haul in a maximum of two pieces. The existing steel bridge is approximately 40 feet long and 16 feet wide outside of curb to outside of curb.

Section 203 - Excavation & Embankment

CONSTRUCTION

203.15 Embankment Placing Methods

Under Method 3, insert the following between the first and second sentences:

"Material shall be at a uniform moisture content greater than 10 percent and suitable for compaction."

Section 204 - Soil Erosion & Water Pollution Control

DESCRIPTION

204.01 Work — In the first paragraph, first sentence, after the word "temporary," add: "and/or permanent."

CONSTRUCTION

204.03 Performance — Delete the second paragraph and add the following:

"All erosion control features shall be incorporated into the project at the earliest practicable time as outlined in the approved schedule." Incorporate all erosion control features in accordance with all necessary permits. Follow any restrictions on work within the water course as outlined in the permits. Add silt fences at the toe of all fill slopes and along the banks of the streams where runoff could enter the stream. Do not allow any drainage from the project limits to enter directly into the stream."

Do not use straw/hay bales on this project.

Comply with all local, state, and federal permits issued for this project. Contact the Forest Officer regarding any questions concerning the permits and associated requirements.

Section 206-Structure Excavation

CONSTRUCTION

206.03 All Structures

Delete the third pragraph and add the following:

"Boulders, logs, and any other unsuitable material encountered in the excavation shall be removed and disposed of at locations SHOWN ON THE DRAWINGS or designated by the Forest Officer."

206.04 Utilization of Excavated Materials

Delete the second sentence of the first paragraph and add the folllowing:

"All surplus material shall be disposed of AS SHOWN ON THE DRAWINGS or as directed by the Forest Officer."

206.07 Backfill & Embankments Structures

Replace the third and fourth paragraphs with the following:

"Backfill or embankment material shall be placed at both abutments of a spill for through abutment so that not more than 2 feet of elevation difference exists between the backfill or embankment of the two abutments. No embankment or backfill shall be placed higher than 1 foot below the top of the cap until after the treated timber stringers and deck have been placed, after the grout and mortar for the prestressed multibeam girders have been placed and cured, or after the concrete deck of cast-in-place deck superstructures has been placed and cured."

Replace the last paragraph with the following:

"Except for riprap on the streamside of the abutments, rock having its largest dimension greater than 6 inches shall not be placed within any backfill or embankment that is within 3 feet of the abutments."

Section 551 - Piling

551.03 Load Tests

Replace the second sentence of the first paragraph with the following:

"When diesel or other types of hammers requiring calibration are to be used, the pressure gauge calibration shall have been done within 180 days of the beginning of the actual pile driving. A certification of that calibration shall be submitted to the PE a minimum of 21 days before driving piles."

Change Engineer to PE as defined in SPS 160 in the second and third paragraphs.

551.05 Concrete and Steel Pile Bearing Values

Change Engineer to PE as defined in SPS 160 in the sixth paragraph.

Section 552 - Structural Concrete

DESCRIPTION

552.02 Classes, Composition, & Testing of Concrete

(b) Composition of Concrete. Subsection (3)e shall be replaced with the following:

"e. At least three 7-day or three 28-day compressive strength tests."

(b) Composition of Concrete: Subsection (5) will be replaced with the following for Class A concrete only:

"(5) Aggregate test results for grading, deleterious substances, and physical properties shall be in accordance with Section 703. The following tests and results shall be submitted:

Fine aggregate

a. Sieve analysis . . . . . .AASHTO T 27

b. Deleterious substances

Material finer than the No. 200 sieve . . . . . .AASHTO T 11

c. Bulk specific gravity and absorption capacity . . . . . AASHTO T 84

Coarse Aggregate

a. Sieve analysis . . . . . AASHTO T 27

b. Deleterious substances

Material finer that the No. 200 sieve . . . . . AASHTO T 11

c. Bulk specific gravity and absorption capacity . . . . . AASHTO T 85

d. Percentage of Wear (L.A.R.) . . . . . AASHTO T 96"

(c) Concrete Compressive Strength.

Delete the fourth paragraph.

Replace subsection (c)(1) with the the following:

"For concrete in structures designed by the working stress method, and if seven or more strength tests are available, not more than 20 percent of the strength tests shall have values less than the specified strength, and the average of any six consecutive strength tests shall be equal to or greater than the specified strength.

For concrete in structures designed by the ultimate strength method and in prestressed beams, and if seven or more strength tests are available, not more than 10 percent of the strength tests shall have values less than the specified strength, and the average of any three consecutive strength tests shall be equal to or greater than the specified strength.

Superplasticising admixtures will not be allowed for Class A concrete and may be allowed for Class P concrete on a case-by-case basis as approved by the Engineer as part of the mix design.

Section 553 - Prestressed Concrete Structures

DESCRIPTION

553.01 Work — Add "Consulting Services" to first sentence of the second paragraph.

553.03 Consulting Service — Replace entire section with the following:

"All prestressed concrete members shall be inspected by a quality control engineer (QCE).

The QCE shall be one of the following:

a. The quality control engineer of a PCI certified plant. A copy of the transmittal letter of the latest PCI inspection shall be submitted with the shop drawings.

b. An independent registered professional engineer experienced in prestressed concrete girder inspection shall certify that the prestressed members were built according to the drawings and specifications. Along with the certification, a copy of all testing and inspection reports shall be furnished to the Engineer upon delivery of the members to the job site."

MATERIALS

553.05 Testing — Change Engineer to QCE in last paragraph.

CONSTRUCTION

553.06 Performance — Delete "so that inspection of fabrication operation can be arranged" from the first sentence of the second paragraph.

553.10 Stressing — Change Engineer to QCE in the second paragraph.

Replace the last three paragraphs with the following:

"A wire strand with any broken wires shall not remain within a member."

553.11 Placing Concrete — Change Engineer to QCE in the first paragraph.

553.12 Curing — Change Engineer to QCE in the sixth and eighth paragraphs.

553.14 Finishing — Change Engineer to QCE in the last paragraph.

Section 553A - Precast Concrete Structures

Construction

553A.04 Casting Yard Delete the first sentence and replace with the following:

Precast all concrete structural members in the same casting yard as the Prestressed Concrete members and by the same company.

Section 619 - Riprap

MATERIALS

619.02
Hand-placed
Machine-placed
& Dumped Riprap

Delete the Durability Absorption Ration Chart and formula and the second paragraph.

CONSTRUCTION

619.19
Geotextile

In the second paragraph, delete the third sentence.

In the last paragraph, delete the last sentence and add:

"Riprap placed on the gravel cushion or geotextile shall not be dropped or rolled a distance farther than 1 foot. Load, haul, and place 6 inches of gravel cushion under all Class VII riprap from the Source shown on the cover sheet"

Section 625 - Seeding and Mulching

CONSTRUCTION

625.03 Seeding Seasons — Add the following:

"Time of application shall be during the months of September and October or May and June."

625.05 Application Methods for Seed, Fertilizer, & Limestone

625.05 Application Methods for Seed, Fertilizer, & Limestone — The following is added:

"The kinds of seed to be furnished and the amounts to be applied in terms of pure live seed shall be as follows for all channel restoration sites and roadway cut or fill slopes:

Kind of Seed	Quantity of Pure Live Seed (Lbs/Acre)
1. Tall Fescue (Alta)	6
2. Hard Fescue (Durar)	3
3. Streambank Wheatgrass	4
4. Slender Wheatgrass (Primar or Sodar)	5
5. Annual Rye	4
6. _____	_____
7. _____	_____
Total	22

Pounds of seed to be furnished per acre shall be obtained by dividing the pounds of pure live seed required per acre by the product of the percent purity and percent germination.

Example 5 lbs. pure live seed/acre = commercial

$$\frac{}{0.90 \times 0.85}$$

seed per acre; purity = 90% and germination = 85%

Seed shall be applied by the Dry Method. Fertilizer shall be applied at a rate of 125 pounds per acre in a single application by the broadcast method and have a chemical analysis as listed below:

Nutrient	Percent
Nitrogen, N	16
Phosphorus, $P_2 0_5$	20
Potassium, K	0

Section 701 - Cement, Grout, & Mortar

701.02 Grout

Add the following to this subsection:

Three products that meet these requirements are MASTERFLOW 713 GROUT, manufactured by Master Builders; CRYSTEX GROUT, manufactured by L&M Construction Chemicals, Inc; and RAPID SET NON-SHRINK GROUT, manufactured by CTS Cement Manufacturing Co. These products shall be cured according to the respective table:

MASTERFLOW 713 GROUT shall be cured according to the following table:

GROUT TIME - TEMPERATURE CURING REQUIREMENTS
(Interpolate between listed values)
MASTERFLOW 713 GROUT

WATER CONTENT [1]	8 1/2 LBS. PER BAG		10 LBS. PER BAG	
TEMPERATURE [2]	72°F	40°F	72°F	40°F
CURE TIME	36 HRS. [3]	6 DAYS	54 HRS. [3]	10 DAYS

1 Pounds of water per 55-lb. bag of dry grout material (8-1/2 lbs. = 4.0 quarts; 10 lbs. = 4.8 quarts)
2 Temperature of air or concrete adjacent to grout.
3 Minimum cure time for temperatures above 72° F.

CRYSTEX GROUT shall be cured according to the following table:

GROUT TIME - TEMPERATURE CURING REQUIREMENTS
CRYSTEX

WATER CONTENT [1]	10.4 LBS. PER BAG	
TEMPERATURE [2]	72°F	40°F
CURE TIME	24 HRS. [3]	48 HRS.

1 Pounds of water (5 quarts) per 54-lb. bag of dry grout material.
2 Temperature of air or concrete adjacent to grout.
3 Minimum cure time for temperatures above 72° F.

RAPID SET NON-SHRINK GROUT shall be cured according to the following table:

GROUT TIME - TEMPERATURE CURING REQUIREMENTS
RAPID SET NON-SHRINK GROUT

WATER CONTENT [1]	9.4 LBS. MAXIMUM PER BAG	
TEMPERATURE [2]	70°F	35°F
CURE TIME	3 HRS. [3]	12 HRS.

1 Pounds of water (4.5 quarts max.) per 55-lb. bag of dry grout material.
2 Temperature of air or concrete adjacent to grout.
3 Minimum cure time for temperatures above 70° F.

701.03 Mortar

Add the following to this subsection:

Two products that meet these requirements are EMBECO 411-A, manufactured by Master Builders, and RAPID SET NON-SHRINK GROUT, manufactured by CTS Cement Manufacturing Co.

EMBECO 411-A MORTAR shall be cured according to the following table:

MORTAR TIME - TEMPERATURE CURING REQUIREMENTS
(Interpolate between listed values)
EMBECO 411 MORTAR

WATER CONTENT [1]	5-1/2 LBS. PER BAG		6-1/2 LBS. PER BAG	
TEMPERATURE [2]	72°F	40°F	72°F	40°F
CURE TIME	24 HRS. [3]	60 HRS	54 HRS. [3]	7 DAYS

1 Pounds of water per 55-lb. bag of dry mortar material. (5-1/2 lbs. = 2.6 quarts: 6-1/2 lbs = 3.2 quarts)
2 Temperature of air or concrete adjacent to grout.
3 Minimum cure time for temperatures above 72° F.

RAPID SET NON-SHRINK GROUT for use in bridge deck keyways shall be cured according to the following table:

RAPID SET NON-SHRINK GROUT

WATER CONTENT [1]	9.4 LBS. MAXIMUM PER BAG	
TEMPERATURE [2]	70°F	35°F
CURE TIME	3 HRS. [3]	12 HRS.

1 Pounds of water (4.5 quarts max.) per 55-lb. bag of dry grout material.
2 Temperature of air or concrete adjacent to grout.
3 Minimum cure time for temperatures above 70° F.

Each bag of mortar mix shall have an 'A' or an 'AE' included in the lot number, indicating that the mix is air entrained. If the mix is not air entrained, the Contractor shall adjust the air content to 6.5% $\pm$ 1% by addition of an approved air entrainment. A copy of the manufacturers data sheet for the air entrainment admixture shall be provided to the Forest Officer.

Section 703 - Aggregates

703.01 Fine Aggregate

Delete the following:

"Material passing the Number 200 sieve . . . . . 7.0"

Add the following:

"Material passing the Number 200 sieve . . . . 4.0"

Delete subparagraph (b) Granular Backfill Filter Material and subparagraph (c).

703.02 Course Aggregate

(a) Replace this subsection with the following:

"Coarse aggregate gradation shall meet the requirements of Table 703-1 for AASHTO M 43 size 67 or 57."

Section 720 - Geotextiles

Replace this Section with AASHTO M288-96.